UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,037	04/18/2005	Renaud Nalin	BJS-3665-131	6742

23117 7590 03/22/2007

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
KIM, YOUNG J	
ART UNIT	PAPER NUMBER
1637	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,037	NALIN ET AL.	
	Examiner	Art Unit	
	Young J. Kim	1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *24-47* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 24-41 and 47, drawn to a method of analyzing a library of polynucleotides, involving transposable nucleic acid construct.

Group II, claim(s) 42, drawn to a method of identification or cloning of polynucleotide encoding a selected phenotype via cloning.

Group III, claim(s) 43, drawn to a transposable nucleic acid construct, comprising an origin of transfer, elements for integration and selection flanked by two inverted repeats.

Group IV, claim(s) 44, drawn to a library of polynucleotides comprising a plurality of environmental DNA fragments cloned into cloning vectors.

Group V, claim(s) 45, drawn to a polynucleotide sequence comprising all or part of SEQ ID Number 1 or 2.

Group VI, claim(s) 46, drawn to an oligonucleotide comprising SEQ ID Numbers 3 or 4.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

There is no unity of invention between Groups I and II because the special technical feature, which is determined as being a transposable nucleic acid construct, is not present in the invention

defined by Group II. The method defined by Group II is drawn to general cloning and expression method, which is well established in the art, and thus lacks inventive concept over "prior art."

PCT Rule 13.2, which defines the circumstances when the requirement for unity of invention is met, discloses that such would be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding *special technical features.* The same section defines *special technical feature* as a feature which defines a contribution which of each of the claimed inventions, considered as a whole makes over the prior art.

In other words, if the special technical feature was determined as being drawn to cloning and expression, said special technical feature would lack contribution over the prior art. If the special technical feature was determined as being drawn to the use of transposable nucleic acid construct, then invention defined by Group II would lack this special technical feature, and thus is not linked to Group I, thereby lacking in unity of invention. In addition, for the latter reasons, Group II does share a special technical feature with Group III.

Among Groups I, IV, V, and VI, there exists no common special technical feature. Were one to determine that the common special technical feature is a transposable nucleic acid construct, then Groups IV, V, and VI would lack this feature. Were one to determine that the special technical feature is the actual SEQ ID Numbers, then Groups I and IV would not share this feature, and further the SEQ ID Numbers are not shared between Groups V and VI, and further, the invention defined by Group V is drawn to a single nucleotide (imparted by the phrase, "all or part of") and thus would lack inventive concept over prior art.

Among Between Groups I and III, while there exists a common special technical feature, that is to say, a transposable nucleic acid construct, said feature lacks inventive concept over prior

art as O'Brochta et al. (U.S. Patent No. 5,614,398, issued March 25, 1997) renders this feature novel or obvious:

and other organisms. Specifically, heterologous DNA, terminated at both ends with the terminal inverted repeat sequences of the 2749 base pair Hermes element of the housefly, *M. domestica*, when injected into a host is recombined through transposition in the host, which may be other (column 1)

As noted, transposition may be aided by the use of a "helper plasmid" which comprises the transposase nucleotide sequence set forth in FIG. 3 operably linked to a suitable promoter sequence. Although the Drosophila heat shock-70 promoter sequence is expressly used herein, other promoter sequences suitable for the particular host cell will be known to those of skill in the art and can be used according to established methodologies. The host or target cell need not be an insect cell, although the same is obviously preferred from the point of view of genetic relationship. Nonetheless, the vector is species independent, and maybe used to effect recombination through transposition in non-insectile species, including mammals and humans, thus, the gene transport system of the claimed invention provides a method for introducing heterologous DNA not only into other insects and insect cell lines, but other organisms as

(column 2)

Among Groups II, IV, V, and VI, there exists no common special technical feature. Were one to determine that the common special technical feature is a cloning and expression method, such method has been well-established in the art. Were one to determine that the special technical feature is the actual SEQ ID Numbers, then Groups II and IV would not share this feature, and further the SEQ ID Numbers are not shared between Groups V and VI, and further, the invention defined by Group V is drawn to a single nucleotide (imparted by the phrase, "all or part of") and thus would lack inventive concept over prior art.

Additionally, 37 CFR 1.475 (b), states that claims drawn to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combination of categories:

(1) A product and a process of producing the product

(2) A product and a process of using the product

(3) A product, process of producing the product, and a process of using the product

(4) A process and an apparatus or means to carryout the process

(5) A product, a process of producing the product, and an apparatus of means to carryout the process.

An application containing claims to more or less than one of the "combinations of categories" of inventions set forth above, unity of invention might not be present. (MPEP 1850).

Inventions covered by Groups III-VI comprise different products. Any additional categories of inventions other than Group III, as defined by Groups IV-VI have been determined to lack unity of invention in pursuant to 37 CFR 1.475(b).

A telephone call was not made to request an oral election to the above restriction requirement due to the complex nature of the requirement (MPEP § 812.01).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In

either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Inquiries

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Young J. Kim whose telephone number is (571) 272-0785. The Examiner is on flex-time schedule and can best be reached from 8:30 a.m. to 4:30 p.m (M-W and F). The Examiner can also be reached via e-mail to Young.Kim@uspto.gov. However, the office cannot guarantee security through the e-mail system nor should official papers be transmitted through this route.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Gary Benzion, can be reached at (571) 272-0782.

Papers related to this application may be submitted to Art Unit 1637 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If applicant does submit a paper by FAX, the original copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office. All official documents must be sent to the Official Tech Center Fax number: (571) 273-8300. For Unofficial documents, faxes can be sent directly to the Examiner at (571) 273-0785. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1600.

Young J. Kim
Primary Examiner
Art Unit 1637
3/6/2007

YOUNG J. KIM
PRIMARY EXAMINER

YJK